**Report By:**

**National TAB**
**1329 E. KEMPER ROAD**
**SUITE 4210**
**CINCINNATI, OH 45246**

**Report: TAB REPORT**

**Function: Test, Adjust, & Balance**

**Date: 09/11/2025**

**Completed By: National TAB**

# PROJECT

## 08-04-25 NIKE #202 CHESTERFIELD, MO

18521 Outlet Blvd Suite 500

Chesterfield, , MO 63005

Client

Comfort Systems USA Strategic Accounts

2655 Fortune Circle West, Suite E

Indianapolis, IN 46241

# National TAB

**Project: 08-04-25 NIKE #202 CHESTERFIELD, MO**

## Table Of Contents

## Project Summary

RTU’s (Roof Top Units)
Each of the RTU’s were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer’s design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

# CheckList List

- ALL STEPS TECH CHECKLIST

## 08-04-25 NIKE #202 CHESTERFIELD, MO

### CheckList Information

| | | | |
|---|---|---|---|
| **Name :** | ALL STEPS TECH CHECKLIST | **Status :** | Not Completed |
| **Assigned Organization :** | National TAB | **Asset :** | |
| **Requesting Organization :** | National TAB | | |
| **Created Date :** | 08/04/2025 - Wale Odofin - National TAB | | |

### CheckList Item Details

**RTU's/AHU's**

**Economizers are assembled and functional?**

**Comment:**

YES

**Motors are all operating below the FLA rating?**

**Comment:**

YES

**Are belts tight?**

**Comment:**

NA. DIRECT DRIVE

**If direct drive unit is the speed controller working.**

**Comment:**

YES

**Is gas piping installed and valves turned on?**

**Comment:**

NA. Electric heat

**Unit free of noticeable noise and vibration**

**Comment:**

NO. RTU-4 has loose condenser fan mount that is rattling.

---

**Units are labeled and installed on proper curb**

**Comment:**

YES.

---

**Unit ductwork properly installed / sealed on curb**

**Comment:**

RTU-4 has small leakage at corner near supply fan compartment (RESOLVED PER COMFORT SYSTEMS)

---

**Pulleys are properly aligned**

**Comment:**

NA. Direct drive.

---

**Condensate lines and P-Traps installed correctly**

**Comment:**

YES

---

**Disconnect Switch Installed**

**Comment:**

YES

---

**Outside air dampers/Economizers installed and functioning**

**Comment:**

YES

---

**Additional Comments or recommendations:**

**Comment:**

Return grilles are clogged/dirty. Recommend cleaning. With damper set to minimum position the airflow was below design. RTU's balanced with the damper 100% open which should be more equivalent to airflow once the return grilles are cleaned.

---

**Documentation**

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**If issues, have NTAB team and Comfort Systems team been notified ?**

**Comment:**

YES

---

**If any issues, have Facilibuild issues been created explaining in detail?**

**Comment:**

YES

**Pictures**

**All Issues**

**Comment:**

YES

**Each Piece of equipment**

**Comment:**

YES

**Front of store**

**Comment:**

YES

**Roof Top Layout**

**Comment:**

YES

# National TAB

**Project: 08-04-25 NIKE #202 CHESTERFIELD, MO**

## System/Unit: AHU/RTU

**Asset: RTU1** AREA:SALES FLOOR/REGISTERS

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1925P04331 |
| **Model Num** | 50GECN14A2M6-3W4F0 | 50GECN14A2M6 |
| **Type** | RTU | RTU |
| **Configuration** | VERTICAL | VERTICAL |
| **Num OA Filters 1** | - | 2 |
| **OA Filter Size 1** | - | 22.625X25.5” |
| **Num Final Filter 1** | - | 6 |
| **Final Filter Size 1** | - | 18X24X2” |
| **Num Final Filter 2** | - | |
| **Final Filter Size 2** | - | |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | NL |
| **Frame** | - | NL |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | NL |
| **Phase** | 3 | 3 |
| **Rated Voltage** | 460 | 460 |
| **Rated Amperage** | - | 3.5 |

| Drive Data | |
|---|---|
| | **Actual** |
| **Motor Sheave Size** | DD |
| **Motor Bore Size** | DD |
| **Fan Sheave Size** | DD |
| **Fan Sheave Bore** | DD |
| **Belt CL Distance** | DD |
| **Num of Belts** | DD |
| **Belt Size** | DD |

| Electrical | |
|---|---|
| | **Actual** |
| **VFD Min Setpt** | 39 HZ |
| **VFD Max Setpt** | 60 HZ |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 4800 | 4919 |
| **SF RPM** | - | 1482 |
| **MOTOR RPM** | - | 1482 |
| **RA CFM** | 4250 | 4414 |
| **OA CFM** | 550 | 505 |
| **ABS MIN OA** | - | 495 |
| **ABS MIN OA DAMPER POSITION** | - | 14% |
| **RL Voltage** | - | 484 |
| **RL Amperage** | - | 2.17 |
| **SF Rotation** | - | COUNTERCLOCKWISE |
| **RA Damper Position** | - | 86% |
| **Min OA Damper Position** | - | 14% |
| **Min OA Damper Type** | - | ECON |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -1.51” |
| **Fan Suction SP** | - | -1.49” |
| **Fan Discharge SP** | - | 0.25” |
| **Total ESP** | 1.20 | 1.76” |
| **OA Temp (db/wb)** | - | 95 db/75 wb |
| **RA Temp (db/wb)** | - | 76 db/61 wb |
| **SA Temp (db/wb)** | - | 61 db/53 wb |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |
| **Unit Filters Clean** | YES |

Notes:
-Return Grilles Dirty/Clogged (RESOLVED 9/11/25). Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Initial Airflow Calculation: 2589

Written By: Will Turnbough on 09/11/2025

## Unit Data - PHOTO LOG

**08/06/2025**

# National TAB

**Project: 08-04-25 NIKE #202 CHESTERFIELD, MO**

## System/Unit: AHU/RTU

**Asset: RTU2** AREA:MERCHANDISE/SHOES

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1925P04332 |
| **Model Num** | 50GECN14A2M6-3W4F0 | 50GECN14A2M6-3W4F0 |
| **Type** | RTU | RTU |
| **Configuration** | VERTICAL | VERTICAL |
| **Num OA Filters 1** | - | 2 |
| **OA Filter Size 1** | - | 22.625X25.5” |
| **Num Final Filter 1** | - | 6 |
| **Final Filter Size 1** | - | 18X24X2” |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | NL |
| **Frame** | - | NL |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | NL |
| **Phase** | 3 | 3 |
| **Rated Voltage** | 460 | 460 |
| **Rated Amperage** | - | 3.5 |

| Drive Data | |
|---|---|
| | **Actual** |
| **Motor Sheave Size** | DD |
| **Motor Bore Size** | DD |
| **Fan Sheave Size** | DD |
| **Fan Sheave Bore** | DD |
| **Belt CL Distance** | DD |
| **Num of Belts** | DD |
| **Belt Size** | DD |

| Electrical | |
|---|---|
| | **Actual** |
| **VFD Min Setpt** | 33 Hz |
| **VFD Max Setpt** | 60Hz |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 4000 | 3918 |
| **SF RPM** | - | 1258 |
| **MOTOR RPM** | - | 1258 |
| **RA CFM** | 3050 | 3061 |
| **OA CFM** | 950 | 857 |
| **ABS MIN OA** | - | 855 |
| **ABS MIN OA DAMPER POSITION** | - | 24% |
| **RL Voltage** | - | 490 |
| **RL Amperage** | - | 1.46 |
| **SF Rotation** | - | COUNTERCLOCKWISE |
| **RA Damper Position** | - | 76% |
| **Min OA Damper Position** | - | 24% |
| **Min OA Damper Type** | - | ECON |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.93” |
| **Fan Suction SP** | - | -1.07” |
| **Fan Discharge SP** | - | 0.15” |
| **Total ESP** | - | 1.08” |
| **OA Temp (db/wb)** | - | 104 db/81 wb |
| **RA Temp (db/wb)** | - | 87 db/72 wb |
| **SA Temp (db/wb)** | - | 68 db/55 wb |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |
| **Unit Filters Clean** | YES |

Notes:
-Return Grilles Dirty/Clogged.(RESOLVED 9/11/25). Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Initial Airflow Calculation: 2999

Written By: Will Turnbough on 09/11/2025

## Unit Data - PHOTO LOG

**08/06/2025**

# National TAB

**Project: 08-04-25 NIKE #202 CHESTERFIELD, MO**

## System/Unit: AHU/RTU

**Asset: RTU3** AREA:MERCHANDISE/SHOES

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1925P04333 |
| **Model Num** | 50GECN14A2M6-3W4F0 | 50GECN14A2M6-3W4F0 |
| **Type** | RTU | RTU |
| **Configuration** | VERTICAL | VERTICAL |
| **Num OA Filters 1** | - | 2 |
| **OA Filter Size 1** | - | 22.5X25.5” |
| **Num Final Filter 1** | - | 6 |
| **Final Filter Size 1** | - | 18X24X2” |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | NL |
| **Frame** | - | NL |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | NL |
| **Phase** | - | 3 |
| **Rated Voltage** | - | 460 |
| **Rated Amperage** | - | 3.5 |

| Drive Data | |
|---|---|
| | **Actual** |
| **Motor Sheave Size** | DD |
| **Motor Bore Size** | DD |
| **Fan Sheave Size** | DD |
| **Fan Sheave Bore** | DD |
| **Belt CL Distance** | DD |
| **Num of Belts** | DD |
| **Belt Size** | DD |

| Electrical | |
|---|---|
| | **Actual** |
| **VFD Min Setpt** | 33 Hz |
| **VFD Max Setpt** | 60 Hz |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 4000 | 4080 |
| **SF RPM** | - | 1258 |
| **MOTOR RPM** | - | 1258 |
| **RA CFM** | 3050 | 3092 |
| **OA CFM** | 950 | 988 |
| **ABS MIN OA** | - | 855 |
| **ABS MIN OA DAMPER POSITION** | - | 24% |
| **RL Voltage** | - | 486 |
| **RL Amperage** | - | 1.51 |
| **SF Rotation** | - | COUNTERCLOCKWISE |
| **RA Damper Position** | - | 76% |
| **Min OA Damper Position** | - | 24% |
| **Min OA Damper Type** | - | ECON |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.97” |
| **Fan Suction SP** | - | -1.04” |
| **Fan Discharge SP** | - | 0.21” |
| **Total ESP** | 1.30" | 1.18” |
| **OA Temp (db/wb)** | - | 99 db/77 wb |
| **RA Temp (db/wb)** | - | 81 db/66 wb |
| **SA Temp (db/wb)** | - | 66 db/58 wb |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |
| **Unit Filters Clean** | YES |

Notes:
-Return Grilles Dirty/Clogged(RESOLVED 9/11/25).. Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Initial Airflow Calculation: 3399

Written By: Will Turnbough on 09/11/2025

## Unit Data - PHOTO LOG

**08/06/2025**

# National TAB

**Project: 08-04-25 NIKE #202 CHESTERFIELD, MO**

## System/Unit: AHU/RTU

**Asset: RTU4** AREA:BOH

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 2025C10140 |
| **Model Num** | 50GE-N05A2M6-3W4F0 | 50GE-N05A2M6-3W4F0 |
| **Type** | RTU | RTU |
| **Configuration** | VERTICAL | VERTICAL |
| **Num OA Filters 1** | - | 1 |
| **OA Filter Size 1** | - | 14.125X28.125” |
| **Num Final Filter 1** | - | 4 |
| **Final Filter Size 1** | - | 16X16X2” |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | NL |
| **Frame** | - | NL |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | NL |
| **Phase** | 3 | 3 |
| **Rated Voltage** | 460 | 460 |
| **Rated Amperage** | - | 2.1 |

| Drive Data | |
|---|---|
| | **Actual** |
| **Motor Sheave Size** | DD |
| **Motor Bore Size** | DD |
| **Fan Sheave Size** | DD |
| **Fan Sheave Bore** | DD |
| **Belt CL Distance** | DD |
| **Num of Belts** | DD |
| **Belt Size** | DD |

| Electrical | |
|---|---|
| | **Actual** |
| **VFD Min Setpt** | 48 Hz |
| **VFD Max Setpt** | 60 Hz |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 1600 | 1535 |
| **SF RPM** | - | 1969 |
| **MOTOR RPM** | - | 1969 |
| **RA CFM** | 1285 | 1282 |
| **OA CFM** | 315 | 313 |
| **ABS MIN OA** | - | 284 |
| **ABS MIN OA DAMPER POSITION** | - | 10% |
| **RL Voltage** | - | 490 |
| **RL Amperage** | - | 1.07 |
| **SF Rotation** | - | COUNTERCLOCKWISE |
| **RA Damper Position** | - | 90% |
| **Min OA Damper Position** | - | 10% |
| **Min OA Damper Type** | - | ECON |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -0.71” |
| **Fan Suction SP** | - | -0.92” |
| **Fan Discharge SP** | - | 0.56” |
| **Total ESP** | 1.19" | 1.27” |
| **OA Temp (db/wb)** | - | 100 db/76 wb |
| **RA Temp (db/wb)** | - | 79 db/64 wb |
| **SA Temp (db/wb)** | - | 62 db/55 wb |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |
| **Unit Filters Clean** | YES |

Notes:
-Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Unable to access return Grilles to determine if they were clean/dirty

Written By: Will Turnbough on 09/11/2025

## Unit Data - PHOTO LOG

**08/06/2025**

# National TAB

**Project: 08-04-25 NIKE #202 CHESTERFIELD, MO**

## System/Unit: AHU/RTU

**Asset: RTU5** AREA:OFFICE/BREAKROOM

| Unit Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MFG** | CARRIER | CARRIER |
| **Serial Num** | - | 1925C09522 |
| **Model Num** | 50GE-N06A2M6-3W4F0 | 50GE-N06A2M6-3W4F0 |
| **Type** | RTU | RTU |
| **Configuration** | VERTICAL | VERTICAL |
| **Num OA Filters 1** | - | 1 |
| **OA Filter Size 1** | - | 14.125X28.125” |
| **Num Final Filter 1** | - | 2 |
| **Final Filter Size 1** | - | 16X25X2” |

| Motor Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **Motor MFG** | - | NL |
| **Frame** | - | NL |
| **Horsepower** | - | NL |
| **Motor Rpm** | - | NL |
| **Phase** | 3 | 3 |
| **Rated Voltage** | 460 | 460 |
| **Rated Amperage** | - | 1.7 |

| Drive Data | |
|---|---|
| | **Actual** |
| **Motor Sheave Size** | DD |
| **Motor Bore Size** | DD |
| **Fan Sheave Size** | DD |
| **Fan Sheave Bore** | DD |
| **Belt CL Distance** | DD |
| **Num of Belts** | DD |
| **Belt Size** | DD |

| Electrical | |
|---|---|
| | **Actual** |
| **VFD Min Setpt** | 60 Hz |
| **VFD Max Setpt** | 60 Hz |

| Test Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **SF CFM** | 1750 | 1756 |
| **SF RPM** | - | 2170 |
| **MOTOR RPM** | - | 2170 |
| **RA CFM** | 1585 | 1587 |
| **OA CFM** | 165 | 169 |
| **ABS MIN OA** | - | 149 |
| **ABS MIN OA DAMPER POSITION** | - | 20% |
| **RL Voltage** | - | 487 |
| **RL Amperage** | - | 1.31 |
| **SF Rotation** | - | COUNTERCLOCKWISE |
| **RA Damper Position** | - | 80% |
| **Min OA Damper Position** | - | 20% |
| **Min OA Damper Type** | - | ECON |

| Performance Data | | |
|---|---|---|
| | **Design** | **Actual** |
| **MA Plenum SP** | - | -1.22” |
| **Fan Suction SP** | - | -1.48” |
| **Fan Discharge SP** | - | 0.54” |
| **Total ESP** | 1.19" | 1.76” |
| **OA Temp (db/wb)** | - | 96 db/75 wb |
| **RA Temp (db/wb)** | - | 76 db/63 wb |
| **SA Temp (db/wb)** | - | 64 db/58 wb |

| General | |
|---|---|
| | **Actual** |
| **Fan Rotation Correct** | YES |
| **Unit Filters Clean** | YES |

Notes:
-Balanced RTU with OA method. Put OA damper at 100% and adjusted fan speed accordingly. Set OA once fan speed was balanced.
-Unable to access return Grilles to determine if they were clean/dirty

Written By: Kalen Kemp on 08/06/2025

## Unit Data - PHOTO LOG

**08/06/2025**